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# A WEST AMERICAN JULIA

#### BY H. A. PILSBRY AND A. A. OLSSON

As living mollusks, species of Julia are known in the central Pacific (J. exquisita Gould, Hawaii) and Indian Ocean (Réunion). Fossil forms have been described from lower to middle Miocene of Florida (J. floridana Dall) and the West Indies (J. gardnerae Woodring), and Woodring mentions three from slightly older, Helvetian and Aquitanian, French beds.

The Panamic species here described as J. equatorialis is the first living American species. It seems to be the smallest of these little clams now known. Its rather long and narrow anterior end is most like J. borbonica (Desh.), but that species differs by having a straight ventral margin. J. exquisita Gld., as figured by Dall, Bartsch and Rehder, differs by the same feature. According to Gould it attains a length of 5 mm.

# Julia equatorialis, n. sp. Plate 9, figs. 10, 11.

Shell small, usually between 2 and 3.8 mm. in length. When fresh, the color of the shell is green or greenish yellow but on weathering it soon becomes white. The valves are moderately convex, subquadrate in form, the dorsal margin more strongly convex than the ventral; the anterior end is produced to form a short to fairly long wing, somewhat pointed at the end. Beaks prosogyrate, their position varying somewhat with the length of the anterior wing. Hinge edentulous. Lunule is deeply sunken. In the left valve its inner edge is strongly thickened so that it resembles a large rounded tooth, projecting into the valve cavity. In front of this toothlike process and below the beak it is excavated. In the right valve the lunule does not project so far inward and is not enlarged at the end, but the central part is raised, toothlike, fitting into the excavation mentioned in the lunule of the other valve. Texture of valves is somewhat trans-

lucent, the exterior smoothish, but obscurely marked with about 20 very shallow radial lines. Greatest inflation of the valves situated just back of and below the beaks.

Length 3.7 mm., height 2.7 mm. (type).

Although rare, as far as we may judge from present records, the species seems to have a general distribution through the southern part of the Panamic province, from southern Panama to northern Peru. We have specimens from the following localities:

PANAMA: Bucaru, at the southern tip of the Los Santos Peninsula, one specimen.

COLOMBIA: Isla del Gallo, to the north of Tumaco, one specimen. ECUADOR: Punta Callo, on the coast west of Jipijapa, Prov. of Manabi, three or four specimens.

PERU: Caleto Sal, north of Mancora, Department of Tumbex, 2

specimens, Type 179845 ANSP.

The photographic figures might give one the impression that the projection of the lunule into the valve cavity stands free from the valve below it. This is not the case, as it forms a little buttress, with slightly spreading base, lost in shadow in the photograph. The type is a left valve, fig. 10, but a paratypic right valve is mounted with it in the collection. No entire specimen was found.

# NEW PERUVIAN LAND MOLLUSKS

### By H. A. PILSBRY

The collections of Dr. W. Weyrauch, of Lima, Peru, submitted to me for study, contain many interesting land shells, a considerable number being new to science. A paper describing these will soon appear; meantime I select two which have been named in his honor, for illustration in NAUTILUS.

BOSTRYX WEYRAUCHI, n. sp. Plate 9, fig. 5.

Shell having the general appearance of *B. eremothauma* Pils. being wider than high, acutely carinate and openly umbilicate; opaque, nearly white, with four indistinct spiral bands of pinkish-cinnamon on the base and some faint streaks above. Surface matt, with rather fine, uneven sculpture of strongly retractive